

WHAT IS CLAIMED IS:

1. A method of obtaining solution suggestions for problems, said method comprising the steps of (1) problem identification; (2) automatic problem reformulation as a natural language or Boolean query; and (3) automatic submitting the above query to a database.

2. A system for obtaining solution suggestions for problems, said system including means for identification of a problem; said system including means for formulating a problem as a natural language or Boolean query; said system including a database, said system including means for submitting said query thereof to said database respectively.

3. A system for obtaining solution suggestions for problems comprising a program embodied on a computer readable storage medium, a computer having an output device, a central processing unit, a communication means to one or more knowledge search engines and databases (a knowledge search engine and a database define a knowledge base) said program comprising:

a portion or portions responsive to user input to generate identification of a problem;

a portion or portions to generate from the identification of the problem automatic reformulation of the problem as a natural language query;

a portion or portions to automatically submit the query to at least one knowledge base; and

a portion or portions to provide through the output device responses from the at least one knowledge base.

4. The system of claim 3 further wherein said problem reformulation as a natural language query is done by a portion or portions of the program that translates functional relationships into semantic relationships.

5. The system of claim 3 further wherein said portion or portions of the program to generate reformulation of the problem generate reformulation of the problem as a natural language query or as a Boolean query.

6. The system of claim 3 further wherein the at least one knowledge base is a semantic analysis knowledge base.

7. The system of claim 3 wherein the knowledge base is resident on storage medium co-located with the computer.

8. The system of claim 3 wherein the knowledge base is resident on a corporate server.

9. The system of claim 3 wherein the knowledge base is remotely accessed.

10. The system of claim 3 wherein the knowledge base is a patent collection that is remotely accessed.

11. The system of claim 3 wherein the program has a portion or portions to access a plurality of knowledge bases that are selected from;  
at least one knowledge base resident on a storage medium co-located with the computer,  
at least one knowledge base on a corporate server,  
at least one knowledge base accessed by an internet link.

12. The system of claim 3 wherein the query is submitted to the at least one knowledge base without intervention by a user.

13. The system of claim 3 in which identification of the problem is done an analysis of functional relationships between components under consideration and the automatic reformulation as a query is done by translating a functional relationship into a natural language query

14. The system of claim 3 in which identification of the problem is done by root cause analysis that establishes one or more nodes between events under consideration and the automatic reformulation translates a node into a natural language query

15. The system of claim 11 wherein at least one of said knowledge bases is a semantic analysis knowledge base.

#### ABSTRACT OF THE DISCLOSURE

Problem analysis tool automatically reformulates a problem statement into a natural language or Boolean query that is automatically submitted via a knowledge search tool to a database, and responses to this query from the database are automatically provided.